

- 10 -

CLAIMS

1. Device for storage and conveyance of bulky holders (C), comprising at least one tier (32), each tier comprising at least one conveyance circuit (2) for the holders (C), and each conveyance circuit (2) comprising at least two longitudinal paths (4, 6) disposed substantially parallel to each other, for conveyance of the holders (C) in the direction of the longitudinal paths (4, 6), which longitudinal paths (4, 6) each define a first predetermined number (N) of adjoining holder positions for the holders (C), while two adjacent longitudinal paths (4, 6) of a conveyance circuit (2) slope from the same end in opposite directions, and also comprising transverse tracks situated at the opposite ends of the longitudinal paths and movable at least in the vertical direction, for conveyance of the holders (C) in the direction of the transverse tracks, which transverse tracks can transfer the holders (C) to and from the longitudinal paths (4, 6), and also comprising a second predetermined number ($M \leq 2 \cdot N - 1$) of carriers (14) which are movable along the longitudinal paths and transverse tracks and are designed to take one or more holders (C), lifting means (34) being provided for moving the transverse tracks in the vertical direction.
2. Device according to claim 1, in which the carriers (14) are provided with rows of wheels (16) which are spaced apart and are rotatable in the longitudinal direction of the longitudinal paths (4, 6).
3. Device according to claim 2, in which at least end sections of the longitudinal paths (4, 6) comprise guides (28) for guiding the wheels (16) of the carrier (14), open spaces (30) being present between the guides (28).
- SUB A6 4. Device according to one of the preceding claims, in which the transverse tracks are formed by rotatable discs (40) which are disposed one after the other in rows and are rotatable about a horizontal shaft (42) and in the longitudinal direction of a transverse track.
5. Device according to claim 4, in which a rotatable disc (40) is fixed on the head (36) of a piston/cylinder assembly (34).
- SUB A7 6. Device according to claim 4 or 5, in which the underside of a carrier (14) between the rows of wheels (16) is provided with guides (44) for accommodating and guiding the rotatable discs (40).

- 11 -

- SUB #7
7. Device according to one of the preceding claims, in which the carriers (14) are provided with spacers (46).
8. Device according to one of the preceding claims, in which the longitudinal paths (4, 6) are provided with blocking means (48) for retaining a carrier (14).
9. Device according to one of the preceding claims, provided with a supply point (12) and removal point (10) for feeding in and removing containers (C) respectively.
10. Device according to one of the preceding claims, in which the supply point (12) and removal point (10) are situated at the same end of the longitudinal paths (4, 6) of the device.
11. Device according to one of the preceding claims, in which the supply point (12) and removal point (10) are situated at the end of the longitudinal paths (4, 6) where the height difference between them is minimal.
12. Device according to one of the preceding claims, in which a detection system for detecting a unique code is present, which code (C_n) is placed on a holder (C).
13. Device according to one of the preceding claims, in which each conveyance circuit (2) comprises two parallel longitudinal paths (4, 6), and each tier (32) comprises several conveyance circuits (2) disposed next to each other.
14. Device according to one of the preceding claims, provided with a further conveyor, which moves along each supply and removal point (12, 10) of a conveyance circuit (2), and over which lifting means for conveying holders are disposed in a movable manner.
15. Device according to one of the preceding claims, in which the second predetermined number (M) of carriers (14) movable along the longitudinal paths and transverse tracks is equal to twice the first predetermined number (N) of holder positions of a longitudinal path (4, 6) adjoining each other, minus one.
16. Container terminal provided with a device according to one of the preceding claims.